CALIFORNIA DEPARTMENT OF TRANSPORTATION
DUTY STATEMENT

CLASSIFICATION TITLE	**DISTRICT/DIVISION/OFFICE**	
TRANSPORTATION ENGINEER TECHNICIAN	04 / DESIGN NORTH, ENG SERV-I	
WORKING TITLE	**POSITION NUMBER**	**EFFECTIVE**
TRANSPORTATION ENGINEER TECHNICIAN	904-241-3175-XXX	12/01/2011

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work regularly and on time; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT:

The incumbent in this position serves under the general supervision of a Senior Transportation Engineer. Headquarters for this position is at the District 4 Office located at 325 San Bruno Avenue in San Francisco, and he/she may be called upon to perform any of the following assignments for the office of Engineering Services I as described below:

SPECIFIC DUTIES AND RESPONSIBILITIES:

65% (E)

Perform sampling and testing of construction materials for all phases of structure roadway construction. This sampling and testing include, but are not limited to Hot Mix Asphalt samples and soil samples such as structure backfill, aggregate base, shoulder backing, and lime or cement treated soil. The laboratory physical testing is required for construction projects to verify that the Hot Mix Asphalt samples and aggregate materials meet the State Standard Specifications. The sampling and testing methods are according to California Test Method testing procedures and include , but are not limited to the following California Test Methods (CTMs): CTM 202 (Sieve Analysis of Fine and Coarse Aggregates test), CTM 205 (Determining Percentage of Crushed Particles), CTM 206 (Specific Gravity and Absorption of Coarse Aggregates), CTM 207 (Specific Gravity and Absorption of Fine Aggregates), CTM 211 (Abrasion of Coarse Aggregate Test), CTM 217 (Sand Equivalent Test), CTM 227 (Evaluating Cleanness of Coarse Aggregate Test), CTM 229 (Durability Index Test), CTM 301(Determining the Resistance "R" Value of Treated and Untreated bases), CTM 308 (Determining Bulk Specific Gravity and Density of Compacted Hot Mix Asphalt), and CTM 309 (Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt).

The incumbent will be trained for and receive CTM Certifications for each test method. He/She is required to operate equipment such as a compactor, press, shaker, pulverizer and Stabilometer for running the above CTMs under the general

direction of a Leadworker.

15% (E) Assists with material testing to determine Hot Mix Asphalt (Open Graded Friction Course) designs, Cement Treated Base mix designs, and Lime or Cement treated soil mix design for Construction Contracts.

10% (E) Performs engineering computations to evaluate test data by using volumetric property of the aggregates for backward calculation. This ensures Contractor's operations are in compliance with the plans and specifications.

5% (E) Assists with training of other Transportation Engineer Technicians on various laboratory tests.

5% (E) Assists with research for investigative work on transportation engineering materials.

SUPERVISION EXERCISED OVER OTHERS

This position does not have any supervisory responsibilities.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

This position requires the knowledge and the ability to apply basic engineering mathematics. The incumbent must be able to understand the operation of precision testing equipment. He/She must be able to analyze test results of construction materials and recognize situations that indicate potential or actual problems.

CONSEQUENCE OF ERROR/RESONSIBILITY FOR DECISIONS

Errors, if not immediately recognized and corrected, could result in problems ranging from annoyance to serious inconvenience and, in some cases, may result in delays or costly remedial action on a project.

PUBLIC AND INTERNAL CONTACTS

Public contacts are normally limited to vendors and suppliers of test equipment and construction materials. Other contacts are with the employee's counterparts in city, county and private testing laboratories.

Internal contacts are normally with Resident Engineers, Field Laboratory Supervisors, and Construction Testing and Inspection personnel.

PHYSICAL, MENTAL AND EMOTIONAL EQUIREMENTS

This position requires:

- A trustworthy person, able to function on his/her own with minimal, or no supervision.
- A willingness to work in an environment that is subject to dust and fumes.
- A person recognizes the importance of safely working around and adjacent to testing equipment and power tools.
- Must be able to stand long periods of time operating various types of laboratory equipment.
- An ability to carry 50 lbs. test sample sacks.
- Must be able to develop and maintain cooperative working relationships. Incumbent will work as a member of a team.

WORK ENVIRONMENT

District Materials Laboratory is a warehouse like setting with artificial light. The building temperature may fluctuate due to periodic problems with heating. When working in the lab area or outdoors, employee may be exposed to dirt, dust, fumes, noise, uneven surfaces, and/or variations in temperature.

Some overtime may be needed and vacations may be restricted during peak construction seasons.

I have read, and understand the duties listed above. If you believe you may require accommodation, please discuss this with your hiring supervisor.

EMPLOYEE (Print)	DATE
EMPLOYEE (Signature)	DATE

I have discussed with and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)	DATE
SUPERVISOR (Signature)	DATE